

ABSTRACT OF THE DISCLOSURE

A method of producing a rusticle consortia includes the steps of placing one or more samples obtained from a rusticle on a growth substrate, placing the growth substrate with the samples thereon into a tank filled with an aqueous solution, and controlling an environment of the aqueous solution to promote growth of the rusticle on the growth substrate. The growth substrate may comprise an anodically charged metal such as a mild steel plate that has been embrittled or unlike metals such as Fe and Cu. The aqueous solution is preferably water containing an oxygen and nutrients sufficient to promote growth of the rusticles. A charge may be applied to a location near the growth substrate to form a concentration of particles given off by the rusticle. In preferred embodiments, the grown rusticles are used as therapeutic agents such as anti-microbial, anti-biotic, or anti-cancer agents.